Comparisons Around the Country

I'd have been posting about trends in New Jersey by comparing the number of cases in counties within the state. I found that the higher the population the higher the number of cases. I thought I'd look at nationwide. I was able to find case numbers (4/22/20) for 2792 "counties" (in Alaska they have a different system). I found population data for 3142 "counties". (I'll dispense with the quotes now). I wrote a program to match them up. A seemingly easy task but be because of idiosyncrasies in the data it took ½ a day to get it working. I matched 2599. Here is the graph of cases verses population. <u>Garbage</u>. You don't need an R² to see that.



Thus, across the nation, at the county level, case numbers are not related to population size. And we knew that. New York and NJ are not Montana.

I also compared state's populations to the number of cases in each state and found an R² of 0.19. Garbage. Here is a bar graph of cases/100,000 people by states. NJ is red, NY is dark blue. Click <u>here</u> for a blowup.



Now that if turned you all into statistical wizards I can hear you screaming, "HOW MANY STANDARD DEVIATIONS FROM THE MEAN IS THAT?" Great question.

The last figure answers the question. Recall anything over 2 is an outlier. NY and NJ are clearly outliers. Click <u>here</u> for a blowup.

